

REMARKS

In the Office Action mailed August 23, 2006, the Examiner noted that claims 1-36 were pending, allowed claims 1-17 and 32-34, objected to claims 19, 22, 25, 26, 28 and 29 and rejected claims 18, 20, 23, 24, 27, 30, 31, 35 and 36. Claims 19, 22-31, 35 and 36 have been amended, claim 21 has been canceled, no new claims have been added and, thus, in view of the forgoing claims 1-20 and 22-36 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections and objections are traversed below.

Claim 22 has been amended to correct its dependency because of the cancellation of claim 21.

Claims 19, 22, 25, 26, 28 and 29 have been rewritten into independent form as required by the Examiner.

Objection to Claims 19, 22, 25, 25, 28 and 29

On page 4 of the Action, the Examiner objected to claims 19, 22, 25, 25, 28 and 29 asserting that these claims fail to further limit the previous claim. The Examiner has stated no reason or rationale for this. In addition, this is not the case. For example, claim 18 recited:

18. A method of automatically finding an intersection with an original mesh surface, the method comprising:
finding an intersection with the original mesh surface by using an outer bounding surface, a tight inner surface that is both bounded by the outer bounding surface and wraps the original mesh surface and a tessellation between the inner bounding surface and the outer bounding surface.

And claim 19 recited:

19. A method according to claim 18, wherein the finding of the intersection with the original mesh surface is performed according to an intersection with the outer bounding surface.

It is submitted that finding the intersection "according to an intersection with the outer bounding surface" does indeed further limit the claim. Similar limiting features are found in claims 22, 25, 26, 28 and 29. The Examiner is reminded that some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as the Examiner might desire. If the Examiner maintains this objection, the Examiner is requested to provide specific reasons and a rationale as to why the Examiner interprets the features of the above noted claims as not providing a further limitation. The Examiner also required that these claims be rewritten into independent form which, among other things, would overcome this objection. This has been done. Withdrawal of the objection is requested.

101 Rejection

In the Action on page 4 the Examiner rejected claims 18, 20, 23, 24, 27, 30, 31, 35 and 36 under 35 USC 101 as not statutory specifically because the claims do not recite a tangible result.

First, the Examiner is requested to withdraw and clarify the basis for the rejection. Claim 18 has been rejected as non-statutory for lack of a recited tangible result and recites:

18. A method of automatically finding an intersection with an original mesh surface, the method comprising:
finding an intersection with the original mesh surface by using an outer bounding surface, a tight inner surface that is both bounded by the outer bounding surface and wraps the original mesh surface and a tessellation between the inner bounding surface and the outer bounding surface.

Claim 19, which has not been rejected as non-statutory, recited:

19. A method according to claim 18, wherein the finding of the intersection with the original mesh surface is performed according to an intersection with the outer bounding surface.

Apparently, this feature recited in claim 19 makes it statutory. One then wonders why claim 20 which recites "wherein the finding of the intersection with the original mesh surface is performed according to an intersection" is not statutory. Similar problems are involved with the claims 22, 28 and 29 which depended respectively on claims 20 and 27. The Examiner is requested to clarify with a rational and reasons why this rejection can be made in view of these inconsistencies.

Withdrawal of the non-statutory rejection on this basis is requested.

Second, the Examiner notes on page 5 that producing a "heart condition" as well as producing a "waveform" both rise to the level of a practical result. It is submitted that "finding an intersection" (claims 18 and 20, 27, 30, 31, 35 and 36), "determine an intersection" (claim 23), and "determining ... an outermost intersection (claim 24) raise to at least the same level of producing a tangible result as producing a waveform or a heart condition. The Examiner is requested to clarify with a rational and reasons as to why these recitations do not raise to the same level of tangible result as producing a waveform or a heart condition if the rejection is maintained.

Withdrawal of the non-statutory rejection on this additional basis is requested.

Further, it is submitted that "displaying" the intersection on a "display" or "storing" it in a storage" as recited in claims 18, 20, 23, 24, 27, 30, 31, 35 and 36 provides a recited tangible result. Withdrawal of the non-statutory rejection on this additional basis is requested.

Provisional Objection

On page 5, the Examiner indicated that if claim 20 is found allowable, claims 18, 27, 35 and 36 would be objected to as substantial duplicates apparently asserting that the difference between the claims is just a slight difference in wording. This provisional objection is not understood. There is no slight difference in wording. For example, claim 27 calls for "determining whether the second intersection is occluded" and claims 18, 20, 35 and 36 have no such feature. Thus, the wording difference is not slight and the same thing is not covered. It is submitted that differences in wording between claims 18, 20, 27, 35 and 36 are not slight, the claims do claim subject matter that is different and not the same, and the claims are each of a different scope. For this reason any such objection would be unfounded. It is noted that the applicant has a right to restate the invention in a reasonable number of ways. Even if the Examiner is correct, it is submitted that 5 ways is not unreasonable. Should the Examiner issue such an objection, it is requested that the Examiner state, for the record, how each of the claims are being interpreted as the same in view of the different features recited among these claims.

It is submitted that the claims satisfy the requirements of 35 U.S.C. 101. It is also submitted that the allowed claims 1-17 and 32-34 as well as claims 19, 22, 26, 26, 28 and 29 which have not been rejected, continue to be allowable. It is further submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

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